

**THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF FLORIDA  
MIAMI DIVISION**

**Case No. 1:22-cv-24066-KMM**

GRACE, INC., *et al.*,  
*Plaintiffs*,  
v.  
CITY OF MIAMI,  
*Defendant.*

/

**EXPERT REPORT OF JOHN R. ALFORD, Ph.D.**

September 21, 2023

**Scope of Inquiry**

I have been retained by counsel for the City of Miami, as an expert to provide analysis for defendants related to the City's recent redistricting of the City Commissioner's district map. I have been asked by counsel to examine and respond to the reports provided by Plaintiffs' experts, Dr. Bryant Moy, Dr. Carolyn Abott, and Dr. Cory McCartan, as well as the associated data and materials provided by them in disclosure. My rate of compensation in this matter is \$500 per hour and my compensation does not depend on the outcome of this lawsuit.

**Qualifications**

I am a tenured full professor of political science at Rice University. In my over thirty-five years at Rice I have taught courses on redistricting, elections, political representation, voting behavior and statistical methods at both the undergraduate and graduate level. I am the author of numerous scholarly works on political behavior. These works have appeared in academic journals such as the *American Journal of Political Science*, *Journal of Politics*, *Science*, *Annual Review of Political Science*, *Legislative Studies Quarterly*, *Annals of the American Academy of Political and Social Science*, *Political Psychology*, and *Political Research Quarterly*.

Over the last thirty-five years, I have worked with numerous local governments on districting plans and on Voting Rights Act issues. I have previously provided expert reports and/or testified as an expert witness in voting rights and statistical issues in a variety of court cases in Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Michigan, Mississippi, New Mexico, New York, Pennsylvania, Washington, and Wisconsin. The details of my academic background, including all publications in the last ten years, and work as an expert, including all cases in which I have testified by deposition or at trial in the last four years, are covered in the attached CV (Appendix A).

### **Data and Sources**

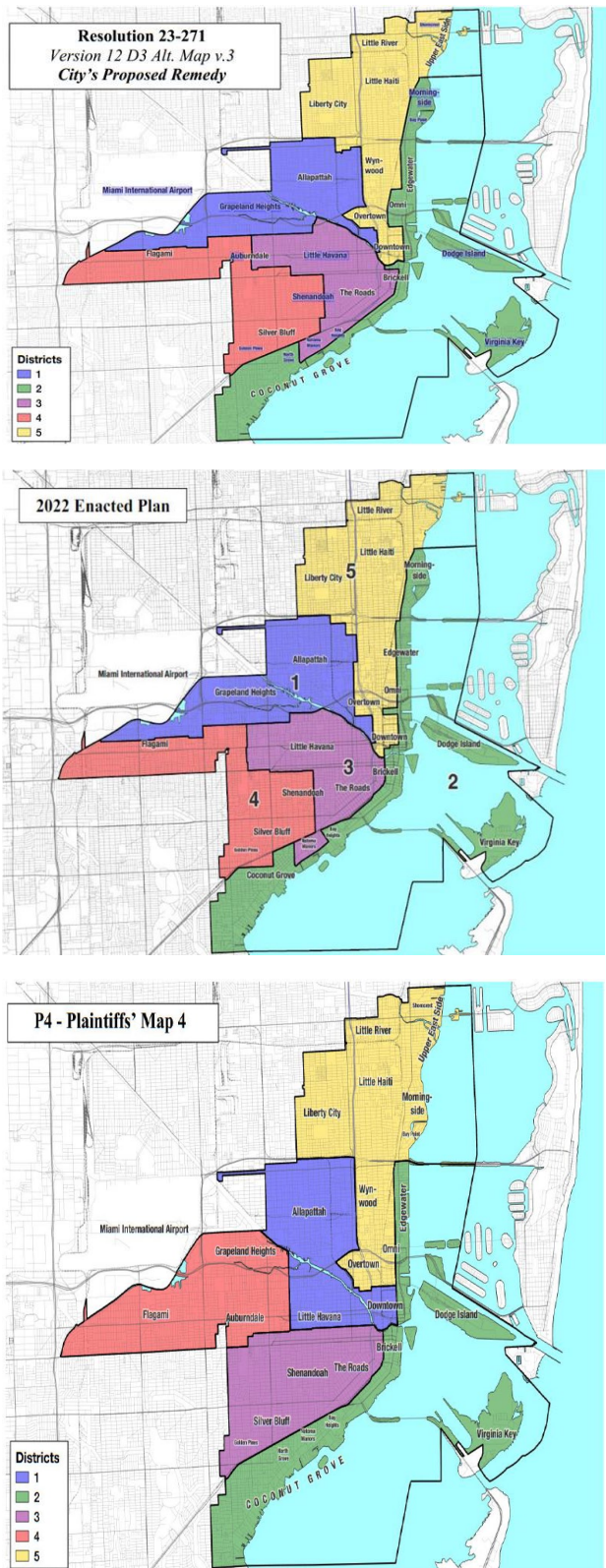
In preparing my report, I have reviewed the reports filed by the plaintiffs' experts and the analysis, the associated documentation, and the data provided by them to date. Additional overlap tables and maps were produced at my direction by Tom Bryan.

My report filed in this case on July 12, 2023, remains my basic expert analysis of the issues in this case. The central issue I am supplementing here concerns first the broad similarity of the Plaintiffs' various plans (specifically P2, P3, and P4) to the City's various plans (enjoined and enacted). This is particularly true in regard to District 5, the Black opportunity district in all the plans, District 2, the diverse plurality district in all the plans, and the combined outline of Districts 1, 3, and 4, three heavily Hispanic districts. This similarity was commented on by the appeals court. In its ruling the 11<sup>th</sup> Circuit Court of Appeals stated:

*First, it is not clearcut that the remedial plan the district court adopted remedies the alleged racial sorting in the City's re-districting legislation. Comparing the maps, the district court's remedial plan looks a lot like the City's March 2022 redistricting plan the district court enjoined. And, comparing the population data, the racial makeup of the district court's remedial plan is close to the racial makeup of the City's June 2023 redistricting plan.*

This visual similarity is apparent across the three maps, as reproduced below in Figure 1.

Figure 1: Three Versions of the Map



## District 5

The City crafted District 5 to be a performing Black district, as it had been in its benchmark form. While the Court has raised issues with the City's use of a 50% BVAP threshold, the resulting configuration of District 5 has been validated by subsequent map drawing by the plaintiffs in their P4 plan where both the racial parameters and the general outline of District 5 closely matches the City's District 5 in both the enjoined plan and the remedial plan. This can be seen by examining the maps, demography, and election performance of the enjoined plan, the remedial plan and the various plaintiffs' plans, included P4 as discussed in my earlier report. As I noted on page 5 of my report:

*Dr. Moy's analysis clearly indicates that all three plans provide a District 5 that is safe for Black-preferred candidates, that is to say all go well beyond the minimal requirement to provide a district where Black votes would at least regularly, or more often than not, or usually, be able to elect their candidate of choice, and provide a district where, by Dr. Moy's estimation, they should always be able to do so. However, despite the plaintiffs' assertion that theirs is the narrowly tailored plan, nothing in Dr. Moy's election performance analysis suggests that District 5 in Plan 4 is in any sense more narrowly tailored in respect to its performance for Black preferred candidates than are the City's plans. As Dr. Moy himself notes on page 3 of his supplement, "According to Table 3, the Black-preferred candidate would receive more votes under the P4 map than both the enjoined and the city's plan." Note also that according to Table 1 in Dr. Moy's supplement, the number of Black registered voters in District 5 in plaintiffs' Plan 4, at 28,156, is actually higher than the number of Black registered voters in the City's most recent plan (27,793) and the enjoined plan (28,054). Based on Dr. Moy's characterization of the of these plans, the City's enjoined and remedial plans could be viewed as more narrowly tailored than the plaintiffs' plan P4.*

In short, based on Dr. Moy's analysis in his report of June 12, 2023 of the actual performance of the various forms of D5 for the preferred candidate of Black voters, all three versions of D5, enjoined, remedial, and P4, clearly meet the minimal legal standard. Moreover, note that according to Dr. Moy the average vote share for the Black preferred candidate under plan P4 is 74.6%, in the City remedial plan the average vote share for the Black preferred candidate is 73.3%, and the average vote share for the Black preferred candidate in the enjoined City plan is 69.2%. In addition, note that the number of Black registered voters in District 5 in plaintiffs' Plan 4, at 28,156, is actually higher than the number of Black registered voters in the City's most recent plan (27,793) and the enjoined plan (28,054). As Dr. Moy concludes on page 10: "The Black-preferred candidate would prevail in either of the two proposed districts. More importantly, Black voters would have seen their preferred candidate receive a higher vote share under P4 than both the city's plan and

the enjoined plan.” The Court concludes that P4 is narrowly tailored, and they note that the City doesn’t dispute this. But the important point is that as the Court concludes, “P4 complies with § 2 of the VRA in a manner consistent with the United States Constitution.” Given that both the City’s remedial and the enjoined plans, being, if anything, *more* narrowly tailored in the critical metric of performance for Black preferred candidates than P4, should also meet that standard.

### **Dr. Abbott’s Second Report**

Dr. Abbott notes at several points that the City’s remedial plan is very similar to the earlier enjoined plan. This begins with her first sentences on page one of the report the “City’s Proposed Remedy (“Res. 23-271”) differs only marginally from the Enjoined Plan. The largest differences can be found in Districts 3 and 4, though Black voting-age populations do not change substantively at all between the two plans.” Similarly, she notes on page 2

*Overall, the commission districts in Res. 23-271 are nearly identical to those contained in the Enjoined Plan. Figure 1 displays the two maps next to one another. They are visually very similar. The biggest changes to the overall composition of the districts occurred in Districts 3 and 4. As shown in Table 1 and Table 2, White VAP increases in District 3 from 7.7% under the Enjoined Plan to 10.5% under Res. 23-271. Hispanic VAP, on the other hand, decreases in District 3 from 88.3% to 84.5%. District 4 absorbs most of these changes such that White VAP decreases (from 7.6% to 7.2%) and Hispanic VAP increases (89.5% to 90.0%). District 2 also absorbs some of these racial changes, though to a lesser degree. Across all districts, Black VAP remains virtually unchanged. Population deviation improved under Res. 23-271, decreasing the population spread from 6,722 (with 86,578 in District 5 and 93,300 in District 2) under the Enjoined Plan to a spread of 3,149 (with 86,444 in District 5 and 89,593 in District 2).*

These similarities are well summarized in her Tables 1 and 2 from page 4 of her report. According to her figures, despite some minor territory swaps, the VAP percentages in D5 are unchanged. Likewise, D2 is very similar, if slightly less White and slightly more Hispanic and more Black. Districts 1, 3, and 4 are also highly similar, with all three remaining well above 80% Hispanic. Despite these clear indications that there has been no substantive change in racial and ethnic makeup of the districts in the remedial plan, Dr. Abbott nonetheless concludes that “The changes that have occurred appear to continue to be designed around racial and ethnic considerations.” It seems difficult to square that assertion with the fact that the net result is essentially no change in the racial and ethnic characteristics of the districts, as Dr. Abbott herself noted repeatedly.

## Figure 2: Tables 1 and 2 From Dr. Abbott's Second Report

*Table 1: District Racial Compositions Under the Enjoined Plan*

District	Black VAP	White VAP	Hispanic VAP
1	11.0%	3.5%	89.5%
2	7.3%	37.4%	48.6%
3	5.4%	7.7%	88.3%
4	3.1%	7.6%	89.5%
5	50.3%	10.5%	40.6%

*Table 2: District Racial Compositions Under Res. 23-271*

District	Black VAP	White VAP	Hispanic VAP
1	10.9%	3.4%	89.7%
2	7.7%	36.5%	49.6%
3	5.4%	10.5%	84.5%
4	3.1%	7.2%	90.0%
5	50.3%	10.5%	40.6%

As I pointed out in my first report, these differences between the City's configuration and the P4 configuration have political ramifications. Dr. Abbott dismisses these concerns by arguing that these are non-partisan elections, but in the current politically polarized environment anyone with any experience with local elections, whether on the ground or academic, recognizes that partisan and ideological difference play a very substantial role in modern elections, even if the elections are nominally non-partisan.

Dr. Abbott also notes on pages 12 and 13 in her conclusion that "shoring up the Republican partisanship of any one of Districts 1, 3, or 4 would have allowed the mapmaker to move areas along the internal borders of those districts to achieve a desired partisan advantage in the others, but the map does not reflect such a strategy. There is no evidence to suggest that any areas were moved or not moved to shore up partisan advantages in district cores." Of course, in addition to shoring up a partisan advantage, it is also possible achieve a partisan advantage by moving partisans into an already secure district to weaken or flip an adjacent district. In any case, it may well be that the minimal changes the City made in drafting the remedial plan do not suggest an effort to "achieve a desired partisan advantage," but Dr. Abbott has acknowledged here that this is nonetheless possible when manipulating the internal boundaries of these three districts. As discussed in my first report, that sort of achievable partisan change is indicated in the impact of



the changes to the internal boundaries of these three districts made in their reconfiguration in the various Plaintiffs' plans, including P4. Selecting between district configurations with different partisan, ideological or policy consequences is a legitimate and time-honored part of political redistricting by government entities, and clearly falls within the legislative prerogatives that a court should defer to in modifying an adopted plan. P4 does this with respect to Districts 2 and 5, but appears not to regarding Districts 1, 3, and 4.

### **Dr. McCartan's Report**

As discussed in detail in my first report, the overlap analysis provided by Dr. McCartan illustrates clearly that both District 2 and District 5 are very similar in their population overlaps in the remedial plan and in P4, relative to the benchmark 2023 plan and the enjoined plan. What differs is the configuration of Districts 1, 3, and 4, the three majority Hispanic districts. This variation is confined to the way the internal boundaries of these three adjoining districts are drawn and does not concern the broader area captured by the three districts collectively. This is illustrated in the overlap analysis below in Tables 1 and 2 below.

**Table 1: Overlap Analysis – City's Plans Relative to the Benchmark 2023 Plan**

<b>Total</b>		<b>Enacted</b>
<b>2013 plan</b>	<b>Enjoined</b>	<b>City</b>
<b>1</b>	99.6%	98.9%
<b>2</b>	79.6%	74.9%
<b>3</b>	100.0%	93.2%
<b>4</b>	92.4%	94.0%
<b>5</b>	91.6%	92.3%
<b>1,3,4 Summed</b>	97.3%	95.4%
<b>Overall</b>	91.5%	89.4%
<b>1,3,4 Joined</b>	99.9%	99.1%

Looking first at Table 1, it is clear that the City's enjoined plan, as well as the later enacted plan, are minimal change plans, following the existing benchmark configurations of all of the districts very closely. District 2 is the only district that is not at or near 90%, and that reflects the fact that District 2 had experienced substantial population growth and had to shed residents for equal population reasons. The high continuity in the remaining four districts is clear, not only for District 5, but also for Districts 1, 3, and 4, both individually and collectively.

**Table 2: Overlap Analysis – City’s Enacted Plan and Plaintiff’s Plans Relative to the Enjoined Plan**

<b>Total</b>		<b>Enacted</b>	<b>ACLU</b>			
<b>Enjoined plan</b>	<b>Enjoined</b>	<b>City</b>	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P4</b>
<b>1</b>	100%	97.5%	60.1%	55.7%	54.5%	53.0%
<b>2</b>	100%	88.5%	60.4%	86.3%	92.7%	92.7%
<b>3</b>	100%	92.2%	83.5%	44.1%	45.1%	47.2%
<b>4</b>	100%	98.0%	58.5%	44.5%	44.5%	44.5%
<b>5</b>	100%	94.5%	87.3%	89.5%	96.4%	95.8%
<b>1,3,4 Summed</b>	100%	95.9%	67.4%	48.1%	48.1%	48.3%
<b>Overall</b>	100%	94.1%	69.8%	64.3%	66.9%	67.0%
<b>1,3,4 Joined</b>	100%	98.0%	87.5%	98.9%	98.5%	98.0%

Table 2 above compares the enacted plan, as well as the four Plaintiffs’ plans to the enjoined plan. For District 5 it is clear that all the versions are very similar, and the P4 version of District 5 actually scores slightly higher than the City’s enacted version. The same can be said for District 2, as again both the enacted and the P4 versions of District 2 have high overlap with the enjoined plan, and P4 scores slightly higher than the enacted plan.

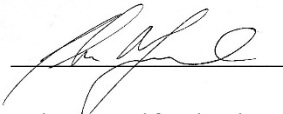
Where things differ dramatically is in the configuration of Districts 1, 3, and 4 (this can also be seen visually in the maps included in Appendix B). Here the enacted plan shows high overlap for each of these districts, just as it did in Table 1 where the enjoined plan was compared to the 2013 benchmark plan. In contrast the scores for P4 are much lower, ranging around or below 50%. But note that while the overlap is very low for each district, if we join the territory of these three districts together, the combined overlap is near 100% for all three maps. The broad outline of the Hispanic majority territory that makes up the three districts is very similar, but the way that territory is divided between the three districts is very different. The City’s enjoined and enacted plans show high overlap with the joined area and with each of the three districts individually. P4 shows high overlap with the joined area but draws the three individual districts with that conserved area very differently.

To the extent that Hispanic ethnicity is implicated in the way the City drew these three districts in its plans, it is essentially identically implicated in P4. All three districts exceed 80% Hispanic in the various plans, including P4. Thus, it is clear that the different internal configuration of



these Hispanic majority districts reflects something other than race or ethnicity. Both the City versions of these districts, and the P4 versions are visually compact, and the various compactness scores bears this out. While the P4 boundaries may result in slightly more compact districts, the City's versions are nonetheless still far from non-compact. It is not clear what justifies the substantial dislocation of voters in P4 within this three-district territory.

September 21, 2023

A handwritten signature in black ink, appearing to read "John R. Alford", is written over a horizontal line.

John R. Alford, Ph.D.

# Appendix A

## John R. Alford

Curriculum Vitae

February, 2022

Dept. of Political Science  
Rice University - MS-24  
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### Employment:

Full Professor, Rice University, 2015 to present.  
Associate Professor, Rice University, 1985-2015.  
Assistant Professor, University of Georgia, 1981-1985.  
Instructor, Oakland University, 1980-1981.  
Teaching-Research Fellow, University of Iowa, 1977-1980.  
Research Associate, Institute for Urban Studies, Houston, Texas, 1976-1977.

### Education:

Ph.D., University of Iowa, Political Science, 1981.  
M.A., University of Iowa, Political Science, 1980.  
M.P.A., University of Houston, Public Administration, 1977.  
B.S., University of Houston, Political Science, 1975.

### Books:

*Predisposed: Liberals, Conservatives, and the Biology of Political Differences*. New York: Routledge, 2013. Co-authors, John R. Hibbing and Kevin B. Smith.

### Articles:

“Political Orientations Vary with Detection of Androstenone,” with Amanda Friesen, Michael Gruszczynski, and Kevin B. Smith. **Politics and the Life Sciences**. (Spring, 2020).

“Intuitive ethics and political orientations: Testing moral foundations as a theory of political ideology.” with Kevin Smith, John Hibbing, Nicholas Martin, and Peter Hatemi. **American Journal of Political Science**. (April, 2017).

“The Genetic and Environmental Foundations of Political, Psychological, Social, and Economic Behaviors: A Panel Study of Twins and Families.” with Peter Hatemi, Kevin Smith, and John Hibbing. **Twin Research and Human Genetics**. (May, 2015.)

“Liberals and conservatives: Non-convertible currencies.” with John R. Hibbing and Kevin B. Smith. **Behavioral and Brain Sciences** (January, 2015).

“Non-Political Images Evoke Neural Predictors Of Political Ideology.” with Woo-Young Ahn, Kenneth T. Kishida, Xiaosi Gu, Terry Lohrenz, Ann Harvey, Kevin Smith, Gideon Yaffe, John Hibbing, Peter Dayan, P. Read Montague. **Current Biology**. (November, 2014).

“Cortisol and Politics: Variance in Voting Behavior is Predicted by Baseline Cortisol Levels.” with Jeffrey French, Kevin Smith, Adam Guck, Andrew Birnie, and John Hibbing. **Physiology & Behavior**. (June, 2014).

“Differences in Negativity Bias Underlie Variations in Political Ideology.” with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

“Negativity bias and political preferences: A response to commentators Response.” with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

“Genetic and Environmental Transmission of Political Orientations.” with Carolyn L. Funk, Matthew Hibbing, Kevin B. Smith, Nicholas R. Eaton, Robert F. Krueger, Lindon J. Eaves, John R. Hibbing. **Political Psychology**, (December, 2013).

“Biology, Ideology, and Epistemology: How Do We Know Political Attitudes Are Inherited and Why Should We Care?” with Kevin Smith, Peter K. Hatemi, Lindon J. Eaves, Carolyn Funk, and John R. Hibbing. **American Journal of Political Science**. (January, 2012)

“Disgust Sensitivity and the Neurophysiology of Left-Right Political Orientations.” with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **PlosONE**, (October, 2011).

“Linking Genetics and Political Attitudes: Re-Conceptualizing Political Ideology.” with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **Political Psychology**, (June, 2011).

“The Politics of Mate Choice.” with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Journal of Politics**, (March, 2011).

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” with Peter Hatemi, John Hibbing, Sarah Medland, Matthew Keller, Kevin Smith, Nicholas Martin, and Lindon Eaves, **American Journal of Political Science**, (July, 2010).

“The Ultimate Source of Political Opinions: Genes and the Environment” with John R. Hibbing in **Understanding Public Opinion**, 3rd Edition eds. Barbara Norrander and Clyde Wilcox, Washington D.C.: CQ Press, (2010).

“Is There a ‘Party’ in your Genes” with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Political Research Quarterly**, (September, 2009).

“Twin Studies, Molecular Genetics, Politics, and Tolerance: A Response to Beckwith and Morris” with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (December, 2008). This is a solicited response to a critique of our 2005 APSR article “Are Political Orientations Genetically Transmitted?”

“Political Attitudes Vary with Physiological Traits” with Douglas R. Oxley, Kevin B. Smith, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, **Science**, (September 19, 2008).

“The New Empirical Biopolitics” with John R. Hibbing, **Annual Review of Political Science**, (June, 2008).

“Beyond Liberals and Conservatives to Political Genotypes and Phenotypes” with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (June, 2008). This is a solicited response to a critique of our 2005 APSR article “Are Political Orientations Genetically Transmitted?”

"Personal, Interpersonal, and Political Temperaments" with John R. Hibbing, **Annals of the American Academy of Political and Social Science**, (November, 2007).

"Is Politics in our Genes?" with John R. Hibbing, **Tidsskriftet Politik**, (February, 2007).

"Biology and Rational Choice" with John R. Hibbing, **The Political Economist**, (Fall, 2005)

"Are Political Orientations Genetically Transmitted?" with John R. Hibbing and Carolyn Funk, **American Political Science Review**, (May, 2005). (The main findings table from this article has been reprinted in two college level text books - Psychology, 9th ed. and Invitation to Psychology 4th ed. both by Wade and Tavis, Prentice Hall, 2007).

"The Origin of Politics: An Evolutionary Theory of Political Behavior" with John R. Hibbing, **Perspectives on Politics**, (December, 2004).

"Accepting Authoritative Decisions: Humans as Wary Cooperators" with John R. Hibbing, **American Journal of Political Science**, (January, 2004).

"Electoral Convergence of the Two Houses of Congress" with John R. Hibbing, in **The Exceptional Senate**, ed. Bruce Oppenheimer, Columbus: Ohio State University Press, (2002).

"We're All in this Together: The Decline of Trust in Government, 1958-1996." in **What is it About Government that Americans Dislike?**, eds. John Hibbing and Beth Theiss-Morse, Cambridge: Cambridge University Press, (2001).

"The 2000 Census and the New Redistricting," **Texas State Bar Association School Law Section Newsletter**, (July, 2000).

"Overdraft: The Political Cost of Congressional Malfeasance" with Holly Teeters, Dan Ward, and Rick Wilson, **Journal of Politics** (August, 1994).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 5th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1993).

"The 1990 Congressional Election Results and the Fallacy that They Embodied an Anti-Incumbent Mood" with John R. Hibbing, **PS** 25 (June, 1992).

"Constituency Population and Representation in the United States Senate" with John R. Hibbing. **Legislative Studies Quarterly**, (November, 1990).

"Editors' Introduction: Electing the U.S. Senate" with Bruce I. Oppenheimer. **Legislative Studies Quarterly**, (November, 1990).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 4th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1988). Reprinted in *The Congress of the United States, 1789-1989*, ed. Joel Silby, Carlson Publishing Inc., (1991), and in *The Quest for Office*, eds. Wayne and Wilcox, St. Martins Press, (1991).

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge. **The Western Political Quarterly** (December, 1986).

"Partisanship and Voting" with James Campbell, Mary Munro, and Bruce Campbell, in **Research in Micropolitics. Volume 1 - Voting Behavior**. Samuel Long, ed. JAI Press, (1986).

"Economic Conditions and Individual Vote in the Federal Republic of Germany" with Jerome S. Legge. **Journal of Politics** (November, 1984).

"Television Markets and Congressional Elections" with James Campbell and Keith Henry. **Legislative Studies Quarterly** (November, 1984).

"Economic Conditions and the Forgotten Side of Congress: A Foray into U.S. Senate Elections" with John R. Hibbing, **British Journal of Political Science** (October, 1982).

"Increased Incumbency Advantage in the House" with John R. Hibbing, **Journal of Politics** (November, 1981). Reprinted in *The Congress of the United States, 1789-1989*, Carlson Publishing Inc., (1991).

"The Electoral Impact of Economic Conditions: Who is Held Responsible?" with John R. Hibbing, **American Journal of Political Science** (August, 1981).

"Comment on Increased Incumbency Advantage" with John R. Hibbing, Refereed communication: **American Political Science Review** (March, 1981).

"Can Government Regulate Safety? The Coal Mine Example" with Michael Lewis-Beck, **American Political Science Review** (September, 1980).

## Awards and Honors:

CQ Press Award - 1988, honoring the outstanding paper in legislative politics presented at the 1987 Annual Meeting of the American Political Science Association. Awarded for "The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing.

## Research Grants:

National Science Foundation, 2009-2011, "Identifying the Biological Influences on Political Temperaments", with John Hibbing, Kevin Smith, Kim Espy, Nicolas Martin and Read Montague. This is a collaborative project involving Rice, University of Nebraska, Baylor College of Medicine, and Queensland Institute for Medical Research.

National Science Foundation, 2007-2010, "Genes and Politics: Providing the Necessary Data", with John Hibbing, Kevin Smith, and Lindon Eaves. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2007-2010, "Investigating the Genetic Basis of Economic Behavior", with John Hibbing and Kevin Smith. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the Queensland Institute of Medical Research.



Rice University Faculty Initiatives Fund, 2007-2009, "The Biological Substrates of Political Behavior". This is in assistance of a collaborative project involving Rice, Baylor College of Medicine, Queensland Institute of Medical Research, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2004-2006, "Decision-Making on Behalf of Others", with John Hibbing. This is a collaborative project involving Rice and the University of Nebraska.

National Science Foundation, 2001-2002, dissertation grant for Kevin Arceneaux, "Doctoral Dissertation Research in Political Science: Voting Behavior in the Context of U.S. Federalism."

National Science Foundation, 2000-2001, dissertation grant for Stacy Ulbig, "Doctoral Dissertation Research in Political Science: Sub-national Contextual Influences on Political Trust."

National Science Foundation, 1999-2000, dissertation grant for Richard Engstrom, "Doctoral Dissertation Research in Political Science: Electoral District Structure and Political Behavior."

Rice University Research Grant, 1985, Recent Trends in British Parliamentary Elections.

Faculty Research Grants Program, University of Georgia, Summer, 1982. Impact of Media Structure on Congressional Elections, with James Campbell.

## Papers Presented:

"The Physiological Basis of Political Temperaments" 6th European Consortium for Political Research General Conference, Reykjavik, Iceland (2011), with Kevin Smith, and John Hibbing.

"Identifying the Biological Influences on Political Temperaments" National Science Foundation Annual Human Social Dynamics Meeting (2010), with John Hibbing, Kimberly Espy, Nicholas Martin, Read Montague, and Kevin B. Smith.

"Political Orientations May Be Related to Detection of the Odor of Androstenone" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, Amanda Balzer, Michael Gruszczynski, Carly M. Jacobs, and John Hibbing.

"Toward a Modern View of Political Man: Genetic and Environmental Transmission of Political Orientations from Attitude Intensity to Political Participation" Annual meeting of the American Political Science Association, Washington, DC (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Genetic and Environmental Transmission of Political Involvement from Attitude Intensity to Political Participation" Annual meeting of the International Society for Political Psychology, San Francisco, CA (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Are Violations of the EEA Relevant to Political Attitudes and Behaviors?" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, and John Hibbing.

"The Neural Basis of Representation" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with John Hibbing.

“Genetic and Environmental Transmission of Value Orientations” Annual meeting of the American Political Science Association, Toronto, Canada (2009), with Carolyn Funk, Kevin Smith, Matthew Hibbing, Pete Hatemi, Robert Krueger, Lindon Eaves, and John Hibbing.

“The Genetic Heritability of Political Orientations: A New Twin Study of Political Attitudes” Annual Meeting of the International Society for Political Psychology, Dublin, Ireland (2009), with John Hibbing, Cary Funk, Kevin Smith, and Peter K Hatemi.

“The Heritability of Value Orientations” Annual meeting of the Behavior Genetics Association, Minneapolis, MN (2009), with Kevin Smith, John Hibbing, Carolyn Funk, Robert Krueger, Peter Hatemi, and Lindon Eaves.

“The Ick Factor: Disgust Sensitivity as a Predictor of Political Attitudes” Annual meeting of the Midwest Political Science Association, Chicago, IL (2009), with Kevin Smith, Douglas Oxley Matthew Hibbing, and John Hibbing.

“The Ideological Animal: The Origins and Implications of Ideology” Annual meeting of the American Political Science Association, Boston, MA (2008), with Kevin Smith, Matthew Hibbing, Douglas Oxley, and John Hibbing.

“The Physiological Differences of Liberals and Conservatives” Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Kevin Smith, Douglas Oxley, and John Hibbing.

“Looking for Political Genes: The Influence of Serotonin on Political and Social Values” Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Peter Hatemi, Sarah Medland, John Hibbing, and Nicholas Martin.

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” Annual meeting of the American Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Matthew Keller, Nicholas Martin, Sarah Medland, and Lindon Eaves.

“Factorial Association: A generalization of the Fulker between-within model to the multivariate case” Annual meeting of the Behavior Genetics Association, Amsterdam, The Netherlands (2007), with Sarah Medland, Peter Hatemi, John Hibbing, William Coventry, Nicholas Martin, and Michael Neale.

“Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs” Annual meeting of the Midwest Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Nicholas Martin, and Lindon Eaves.

“Getting from Genes to Politics: The Connecting Role of Emotion-Reading Capability” Annual Meeting of the International Society for Political Psychology, Portland, OR, (2007.), with John Hibbing.

“The Neurological Basis of Representative Democracy.” Hendricks Conference on Political Behavior, Lincoln, NE (2006), with John Hibbing.

“The Neural Basis of Representative Democracy” Annual meeting of the American Political Science Association, Philadelphia, PA (2006), with John Hibbing.

“How are Political Orientations Genetically Transmitted? A Research Agenda” Annual meeting of the Midwest Political Science Association, Chicago Illinois (2006), with John Hibbing.

"The Politics of Mate Choice" Annual meeting of the Southern Political Science Association, Atlanta, GA (2006), with John Hibbing.

"The Challenge Evolutionary Biology Poses for Rational Choice" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing and Kevin Smith.

"Decision Making on Behalf of Others" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2005), with John Hibbing and Carolyn Funk.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the American Political Science Association, Chicago Illinois (2004), with John Hibbing and Carolyn Funk.

"Accepting Authoritative Decisions: Humans as Wary Cooperators" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2002), with John Hibbing

"Can We Trust the NES Trust Measure?" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2001), with Stacy Ulbig.

"The Impact of Organizational Structure on the Production of Social Capital Among Group Members" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Allison Rinden.

"Isolating the Origins of Incumbency Advantage: An Analysis of House Primaries, 1956-1998" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Kevin Arceneaux.

"The Electorally Indistinct Senate," Norman Thomas Conference on Senate Exceptionalism, Vanderbilt University; Nashville, Tennessee; October (1999), with John R. Hibbing.

"Interest Group Participation and Social Capital" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (1999), with Allison Rinden.

"We're All in this Together: The Decline of Trust in Government, 1958-1996." The Hendricks Symposium, University of Nebraska, Lincoln. (1998)

"Constituency Population and Representation in the United States Senate," Electing the Senate; Houston, Texas; December (1989), with John R. Hibbing.

"The Disparate Electoral Security of House and Senate Incumbents," American Political Science Association Annual Meetings; Atlanta, Georgia; September (1989), with John R. Hibbing.

"Partisan and Incumbent Advantage in House Elections," Annual Meeting of the Southern Political Science Association (1987), with David W. Brady.

"Personal and Party Advantage in U.S. House Elections, 1846-1986" with David W. Brady, 1987 Social Science History Association Meetings.

"The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing, 1987 Annual Meeting of the American Political Science Association.

"A Comparative Analysis of Economic Voting" with Jerome Legge, 1985 Annual Meeting of the American Political Science Association.

"An Analysis of Economic Conditions and the Individual Vote in Great Britain, 1964-1979" with Jerome Legge, 1985 Annual Meeting of the Western Political Science Association.

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge, 1985 Annual Meeting of the Southwestern Social Science Association.

"Economic Conditions and the Individual Vote in the Federal Republic of Germany" with Jerome S. Legge, 1984 Annual Meeting of the Southern Political Science Association.

"The Conditions Required for Economic Issue Voting" with John R. Hibbing, 1984 Annual Meeting of the Midwest Political Science Association.

"Incumbency Advantage in Senate Elections," 1983 Annual Meeting of the Midwest Political Science Association.

"Television Markets and Congressional Elections: The Impact of Market/District Congruence" with James Campbell and Keith Henry, 1982 Annual Meeting of the Southern Political Science Association.

"Economic Conditions and Senate Elections" with John R. Hibbing, 1982 Annual Meeting of the Midwest Political Science Association. "Pocketbook Voting: Economic Conditions and Individual Level Voting," 1982 Annual Meeting of the American Political Science Association.

"Increased Incumbency Advantage in the House," with John R. Hibbing, 1981 Annual Meeting of the Midwest Political Science Association.

## Other Conference Participation:

Roundtable Participant – Closing Round-table on Biopolitics; 2016 UC Merced Conference on Bio-Politics and Political Psychology, Merced, CA.

Roundtable Participant “Genes, Brains, and Core Political Orientations” 2008 Annual Meeting of the Southwestern Political Science Association, Las Vegas.

Roundtable Participant “Politics in the Laboratory” 2007 Annual Meeting of the Southern Political Science Association, New Orleans.

Short Course Lecturer, "What Neuroscience has to Offer Political Science” 2006 Annual Meeting of the American Political Science Association.

Panel chair and discussant, "Neuro-scientific Advances in the Study of Political Science” 2006 Annual Meeting of the American Political Science Association.

Presentation, "The Twin Study Approach to Assessing Genetic Influences on Political Behavior" Rice Conference on New Methods for Understanding Political Behavior, 2005.

Panel discussant, "The Political Consequences of Redistricting," 2002 Annual Meeting of the American Political Science Association.

Panel discussant, "Race and Redistricting," 1999 Annual Meeting of the Midwest Political Science Association.

Invited participant, "Roundtable on Public Dissatisfaction with American Political Institutions", 1998 Annual Meeting of the Southwestern Social Science Association.

Presentation, "Redistricting in the '90s," Texas Economic and Demographic Association, 1997.

Panel chair, "Congressional Elections," 1992 Annual Meeting of the Southern Political Science Association.

Panel discussant, "Incumbency and Congressional Elections," 1992 Annual Meeting of the American Political Science Association.

Panel chair, "Issues in Legislative Elections," 1991 Annual Meeting of the Midwest Political Science Association.

Panel chair, "Economic Attitudes and Public Policy in Europe," 1990 Annual Meeting of the Southern Political Science Association

Panel discussant, "Retrospective Voting in U.S. Elections," 1990 Annual Meeting of the Midwest Political Science Association.

Co-convener, with Bruce Oppenheimer, of Electing the Senate, a national conference on the NES 1988 Senate Election Study. Funded by the Rice Institute for Policy Analysis, the University of Houston Center for Public Policy, and the National Science Foundation, Houston, Texas, December, 1989.

Invited participant, Understanding Congress: A Bicentennial Research Conference, Washington, D.C., February, 1989.

Invited participant--Hendricks Symposium on the United States Senate, University of Nebraska, Lincoln, Nebraska, October, 1988

Invited participant--Conference on the History of Congress, Stanford University, Stanford, California, June, 1988.

Invited participant, "Roundtable on Partisan Realignment in the 1980's", 1987 Annual Meeting of the Southern Political Science Association.

## Professional Activities:

### Other Universities:

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2018.

Invited Speaker, Annual Allman Family Lecture, Dedman College Interdisciplinary Institute, Southern Methodist University, 2016.

Invited Speaker, Annual Lecture, Psi Sigma Alpha – Political Science Dept., Oklahoma State University, 2015.

Invited Lecturer, Department of Political Science, Vanderbilt University, 2014.

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2014.

Invited Speaker, Graduate Student Colloquium, Department of Political Science, University of New Mexico, 2013.

Invited Keynote Speaker, Political Science Alumni Evening, University of Houston, 2013.

Invited Lecturer, Biology and Politics Masters Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2010.

Invited Lecturer, Biology and Politics Senior Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2008.

Visiting Fellow, the Hoover Institution, Stanford University, 2007.

Invited Speaker, Joint Political Psychology Graduate Seminar, University of Minnesota, 2007.

Invited Speaker, Department of Political Science, Vanderbilt University, 2006.

#### **Member:**

Editorial Board, Journal of Politics, 2007-2008.

Planning Committee for the National Election Studies' Senate Election Study, 1990-92.

Nominations Committee, Social Science History Association, 1988

#### **Reviewer for:**

American Journal of Political Science

American Political Science Review

American Politics Research

American Politics Quarterly

American Psychologist

American Sociological Review

Canadian Journal of Political Science

Comparative Politics

Electoral Studies

Evolution and Human Behavior

International Studies Quarterly



Journal of Politics  
 Journal of Urban Affairs  
 Legislative Studies Quarterly  
 National Science Foundation  
 PLoS ONE  
 Policy Studies Review  
 Political Behavior  
 Political Communication  
 Political Psychology  
 Political Research Quarterly  
 Public Opinion Quarterly  
 Science  
 Security Studies  
 Social Forces  
 Social Science Quarterly  
 Western Political Quarterly

### **University Service:**

Member, University Senate, 2021-2023.

Member, University Parking Committee, 2016-2022.

Member, University Benefits Committee, 2013-2016.

Internship Director for the Department of Political Science, 2004-2018.

Member, University Council, 2012-2013.

Invited Speaker, Rice Classroom Connect, 2016.

Invited Speaker, Glasscock School, 2016.

Invited Speaker, Rice Alumni Association, Austin, 2016.

Invited Speaker, Rice Alumni Association, New York City, 2016.

Invited Speaker, Rice TEDxRiceU , 2013.

Invited Speaker, Rice Alumni Association, Atlanta, 2011.

Lecturer, Advanced Topics in AP Psychology, Rice University AP Summer Institute, 2009.

Scientia Lecture Series: “Politics in Our Genes: The Biology of Ideology” 2008

Invited Speaker, Rice Alumni Association, Seattle, San Francisco and Los Angeles, 2008.

Invited Speaker, Rice Alumni Association, Austin, Chicago and Washington, DC, 2006.

Invited Speaker, Rice Alumni Association, Dallas and New York, 2005.

Director: Rice University Behavioral Research Lab and Social Science Computing Lab, 2005-2006.

University Official Representative to the Inter-university Consortium for Political and Social Research, 1989-2012.

Director: Rice University Social Science Computing Lab, 1989-2004.

Member, Rice University Information Technology Access and Security Committee, 2001-2002

Rice University Committee on Computers, Member, 1988-1992, 1995-1996; Chair, 1996-1998, Co-chair, 1999.

Acting Chairman, Rice Institute for Policy Analysis, 1991-1992.

Divisional Member of the John W. Gardner Dissertation Award Selection Committee, 1998

Social Science Representative to the Educational Sub-committee of the Computer Planning Committee, 1989-1990.

Director of Graduate Admissions, Department of Political Science, Rice University, 1986-1988.

Co-director, Mellon Workshop: Southern Politics, May, 1988.

Guest Lecturer, Mellon Workshop: The U.S. Congress in Historical Perspective, May, 1987 and 1988.

Faculty Associate, Hanszen College, Rice University, 1987-1990.

Director, Political Data Analysis Center, University of Georgia, 1982-1985.

### **External Consulting:**

Expert Witness, Johnson v. Wisconsin Elections Commission, 2022.

Expert Witness, Grant v. Raffensperger, challenge Georgia congressional map, 2022

Expert Witness, Brooks et al. v. Abbot, challenge to State Senate District 10, 2022.

Consultant, Lancaster ISD – redrawing of all school board member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, City of Baytown – redrawing of all city council member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, Goose Creek ISD – redrawing of all board member election districts including demographic analysis and redrawing of election districts, 2021.

Expert Witness, Christian Ministerial Alliance et al v. Arkansas, racially polarized voting analysis, 2020.

Expert Witness, Bruni et al. v. State of Texas, straight ticket voting analysis, 2020.

Consulting Expert, Sarasota County, VRA challenge to district map, 2020.

Expert Witness, Kumar v. Frisco ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Vaughan v. Lewisville ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Johnson v. Ardoin, (Louisiana), racially polarized voting analysis, 2019.

Expert Witness, Flores et al. v. Town of Islip, NY, racially polarized voting analysis, 2018.

Expert Witness, Tyson v. Richardson ISD, racially polarized voting analysis, 2018.

Expert Witness, Dwight v. State of Georgia, racially polarized voting analysis, 2018.

Expert Witness, NAACP v. East Ramapo Central School District, racially polarized voting analysis, 2018.

Expert Witness, Georgia NAACP v. State of Georgia, racially polarized voting analysis, 2018.

Expert Witness, United States v. City of Eastpoint, racially polarized voting analysis, 2017.

Expert Witness, Georgia NAACP v. Gwinnett County, racially polarized voting analysis, 2017.

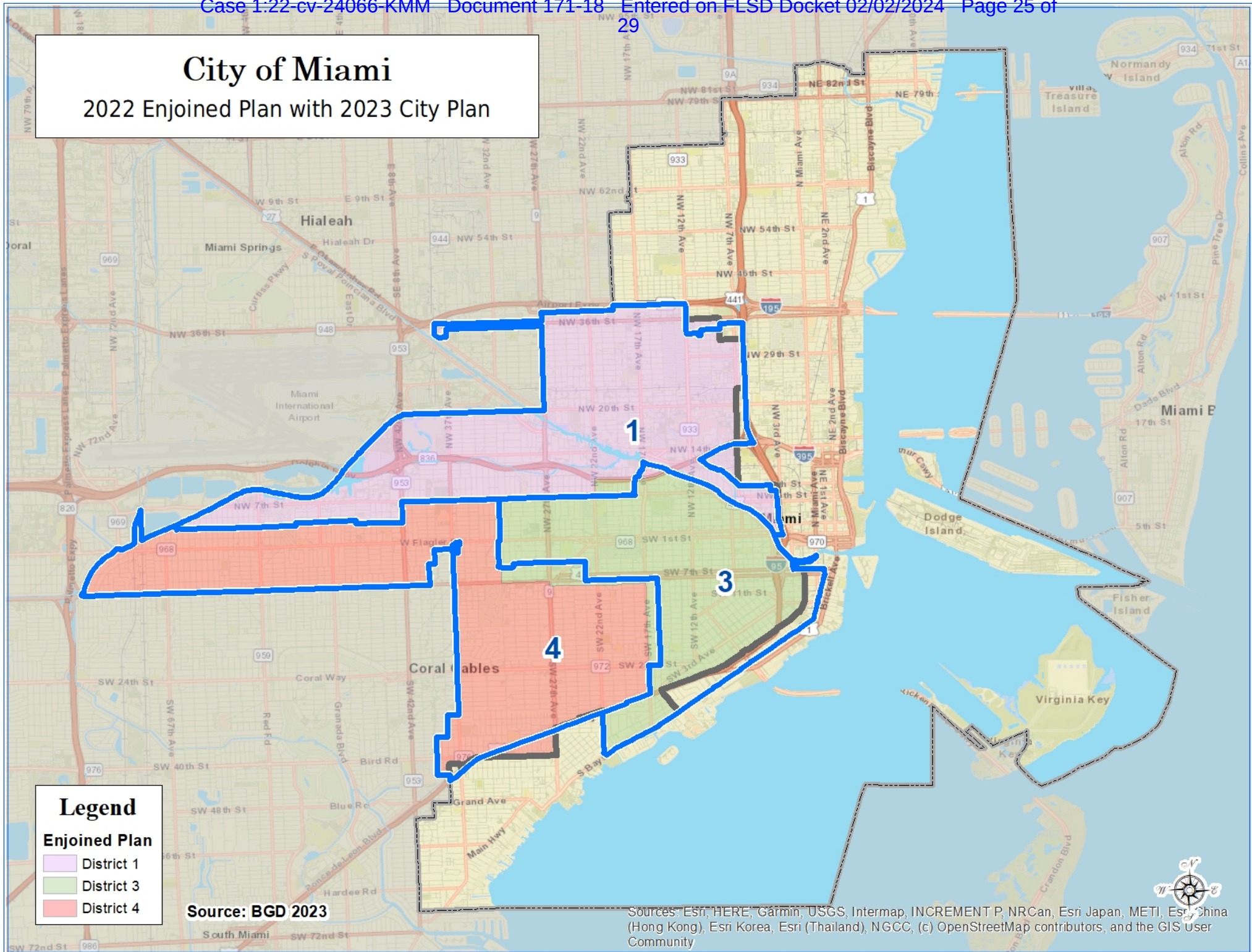
Expert Witness for the State of Texas, Lopez, et al v. Abbott, a challenge to the current system of statewide at-large elections for the Texas Supreme Court and the Texas Court of Criminal Appeals, including election analysis, and racially polarized voting analysis, 2017.

Expert witness for the State of Texas, Perez, et al v State of Texas (and consolidated cases), challenge to adopted Texas election districts for the US Congress and the Texas House of Representatives, 2011-2017.

## **Appendix B**

# City of Miami

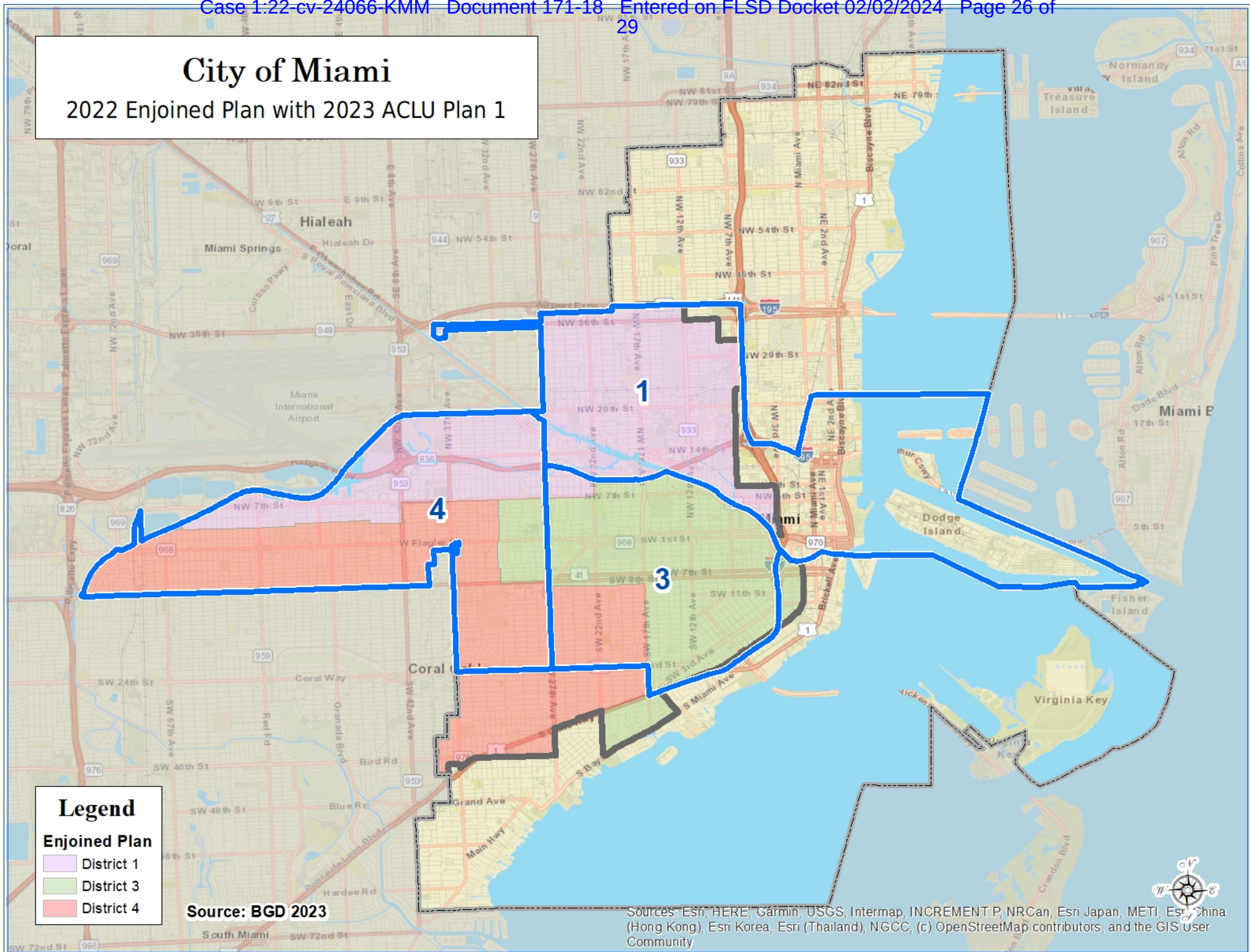
## 2022 Enjoined Plan with 2023 City Plan





# City of Miami

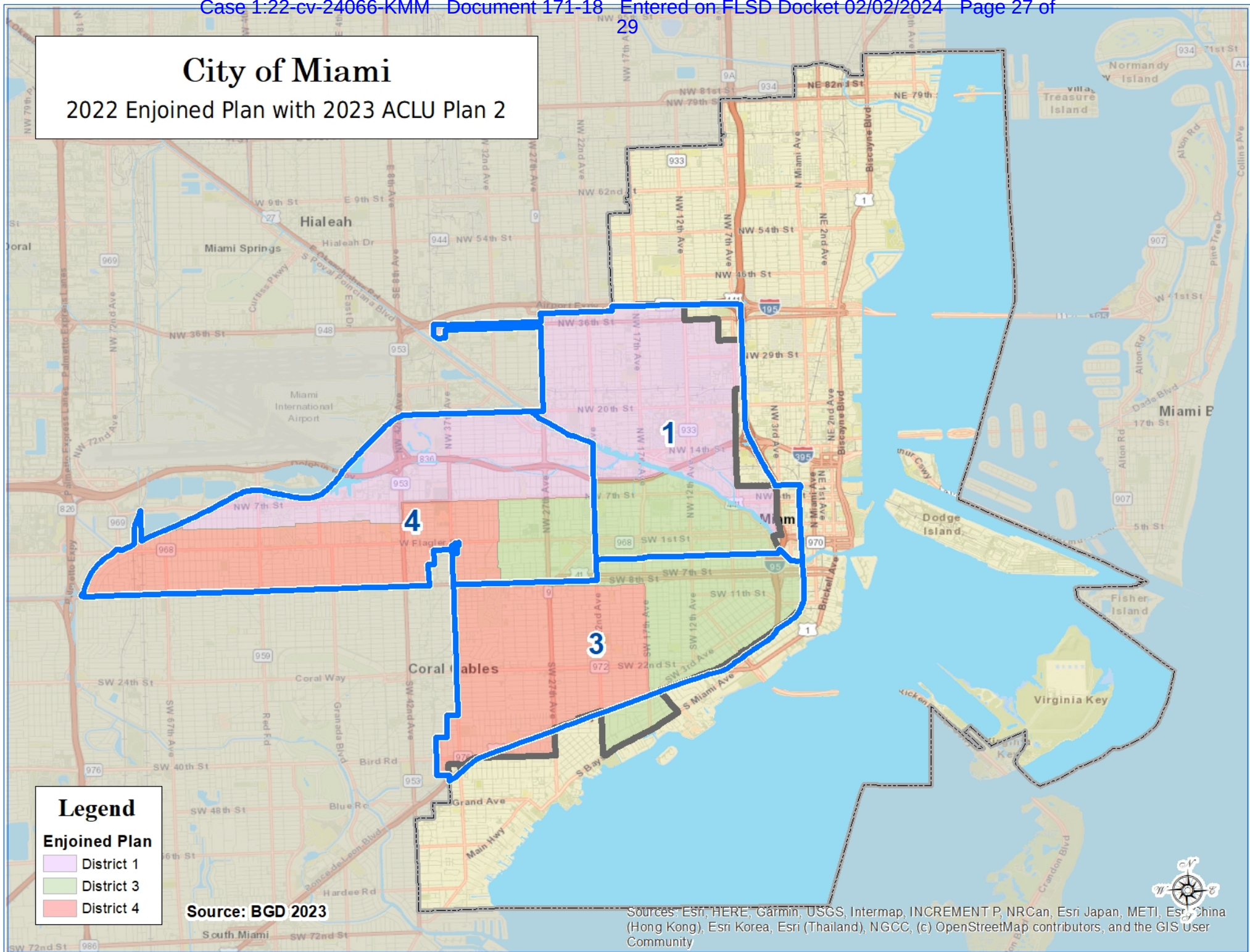
## 2022 Enjoined Plan with 2023 ACLU Plan 1





# City of Miami

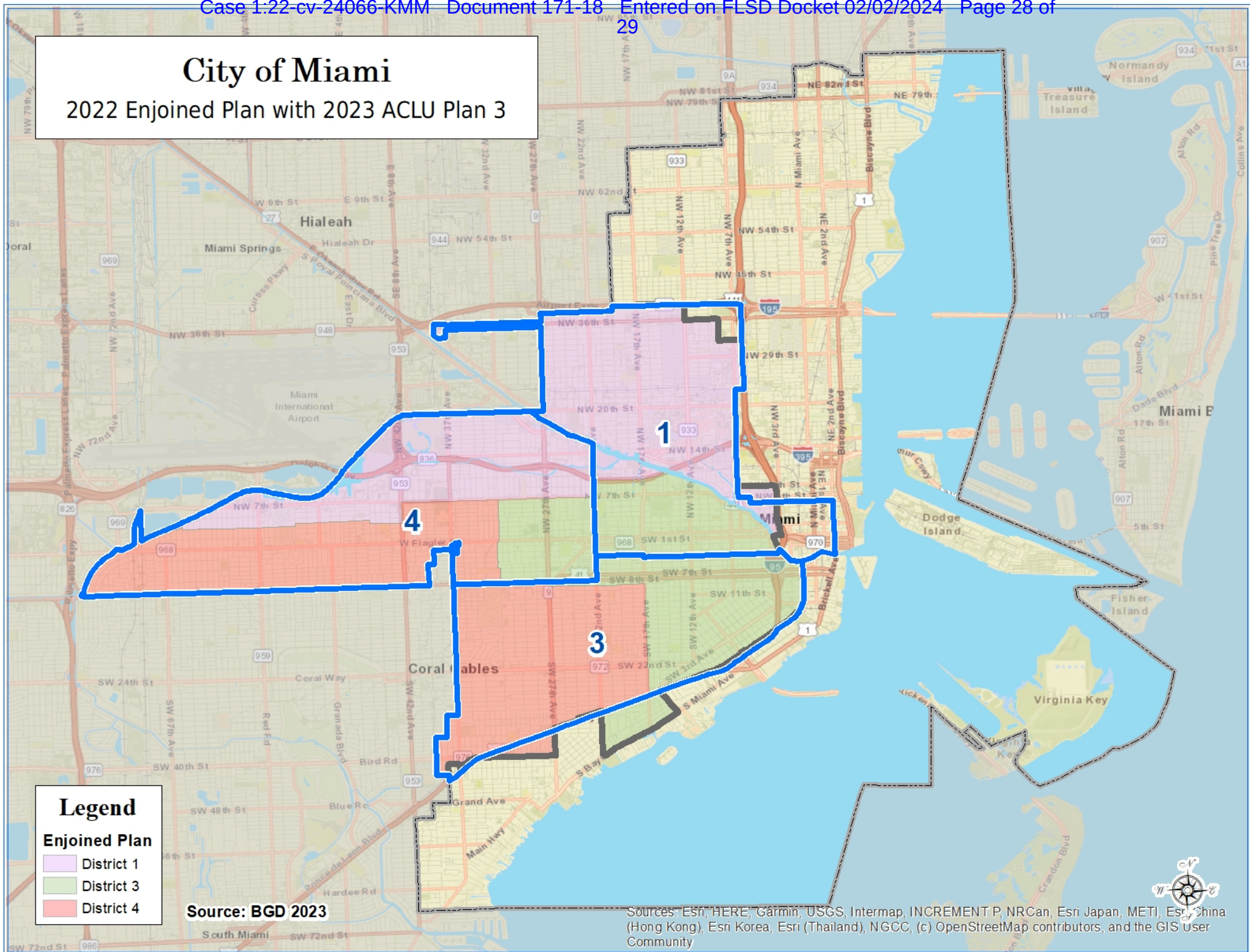
## 2022 Enjoined Plan with 2023 ACLU Plan 2





# City of Miami

## 2022 Enjoined Plan with 2023 ACLU Plan 3





# City of Miami

## 2022 Enjoined Plan with 2023 ACLU Plan 4

